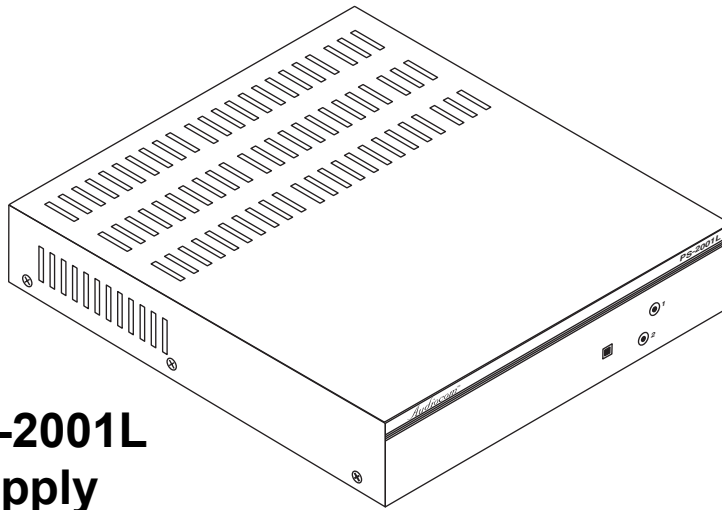


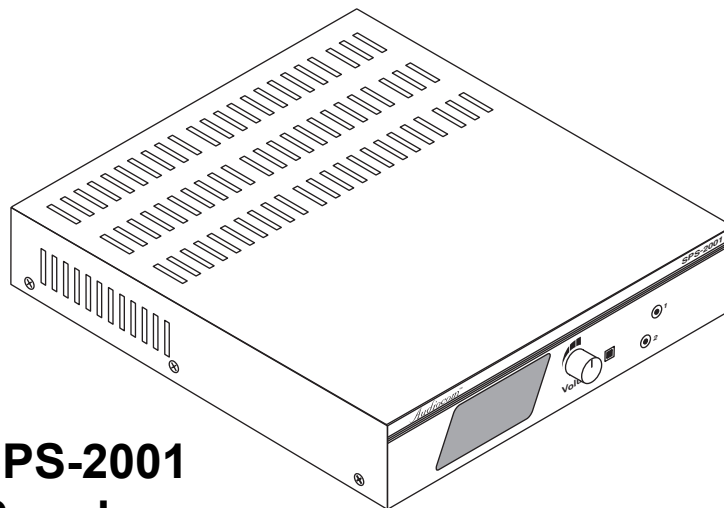
# Telex<sup>®</sup>

## User Instructions

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**Model PS-2001L  
Power Supply**



**Model SPS-2001  
Power Supply**

**Audiocom<sup>®</sup> Intercom Systems**

## **FCC Statement**

This equipment uses, and can radiate radio frequency energy that may cause interference to radio communications if not installed in accordance with this manual. The equipment has been tested and found to comply with the limits of a Class A computing device pursuant to Subpart J, Part 15 of FCC Rules which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference which the user (at his own expense) will be required to correct.

**CE** This product meets Electromagnetic Compatibility Directive 89/336/EEC

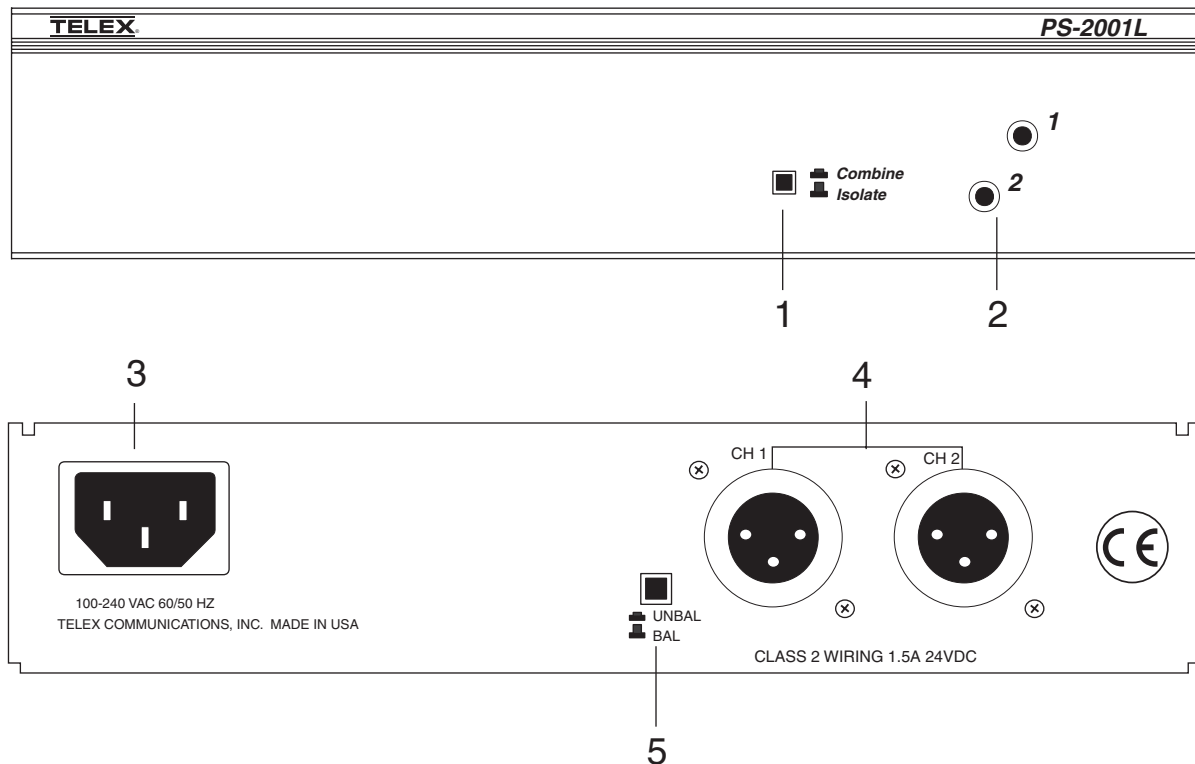
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# Description

The PS-2001L and SPS-2001 are versatile power supplies that can be used in a variety of Audiocom® intercom system applications. They both directly accept any AC input power from 100 to 240 VAC, 50/60 Hz and can be configured to power two separate intercom channels or one large intercom channel with twice the intercom station capacity. Additionally, the units can be configured for compatibility with Clear-Com® Intercom Systems. The units may be rack mounted or used on a desktop. For rack mounting, optional hardware is required. For desktop use, four non-marring rubber feet are supplied. The SPS-2001 also provides a speaker with two mixed inputs making it ideal for situations calling for a master station with a microphone / speaker combination.

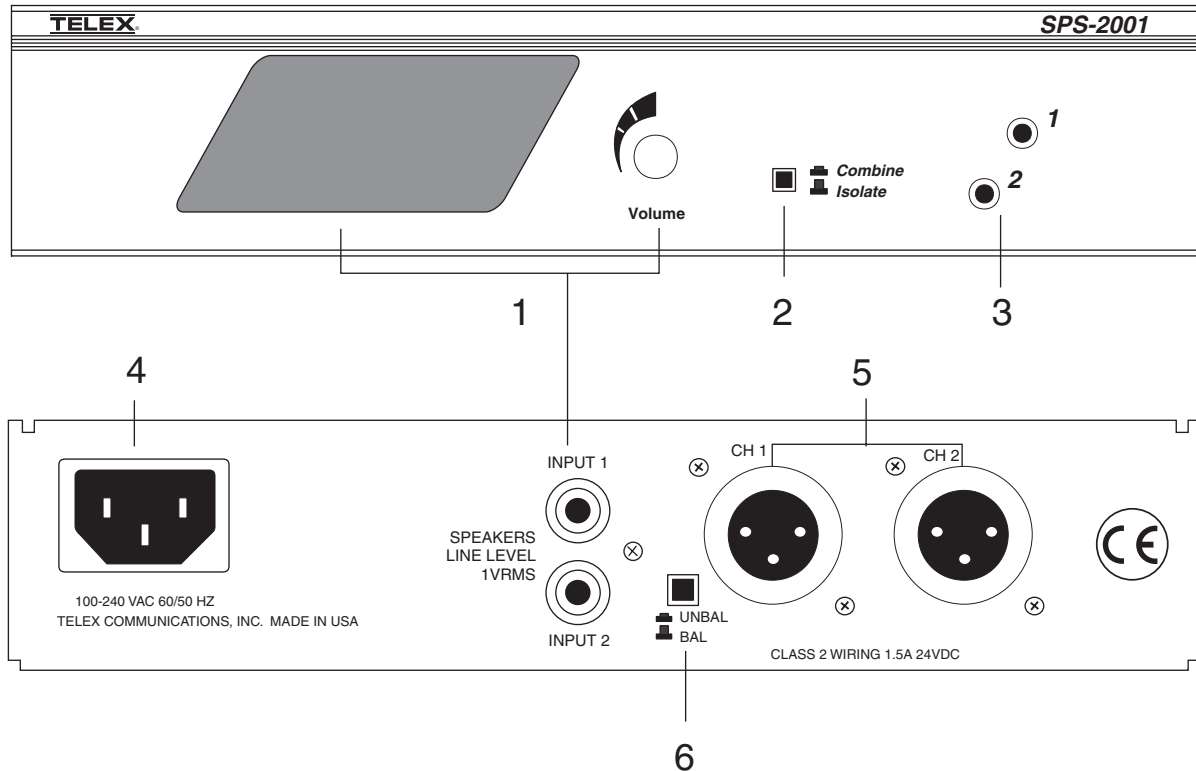
## PS-2001L



**Figure 1 - PS-2001L Front and Rear Panel Features.**

1. **Combine / Isolate Switch:** When in the Combine position, the unit will combine the audio signals of the two channels to create a single audio channel where all users can intercommunicate. When in the Isolate position, the unit will create two groups of completely independent users.
2. **Channel Status Indicators:** The indicators are green for normal operation and red when there is an overload or short circuit. The circuitry in the unit will automatically reset when the overload or short circuit is located and fixed.
3. **Universal AC Power Input:** The unit accepts any input power in the range of 100-240 VAC, 50/60 Hz.
4. **Intercom Channel Connectors:** When the Combine / Isolate switch is set to the Isolate position, each channel connector is powered separately and has completely separate intercom audio. When the Combine / Isolate switch is set to the Combine position, each channel is still powered separately, but the audio signals are combined so that all users on both channels can intercommunicate.
5. **BAL / UNBAL Selector Switch:** This selector switch allows the user to configure the unit for use in either an Audiocom® (BALANCED) or Clear-Com (UNBALANCED) system. Compatibility includes channel connector pin-outs, channel power requirements, and call signaling requirements. The default setting for this switch is in the Audiocom® (BAL) position.

## SPS-2001



**Figure 2 - SPS-2001 Front and Rear Panel Features.**

1. **Speaker, Inputs, and Volume Control:** Two audio inputs are provided. The inputs are combined internally and sent as a monaural signal to the internal speaker amplifier. The Volume control adjusts the level to the front panel speaker. Typically, these inputs are used with the speaker outputs of a master station when the master station is set for use with a panel microphone and speaker instead of a headset.
2. **Combine / Isolate Switch:** When in the Combine position, the unit will combine the audio signals of the two channels to create a single audio channel where all users can intercommunicate. When in the Isolate position, the unit will create two groups of completely independent users.
3. **Channel Status Indicators:** The indicators are green for normal operation and red when there is an overload or short circuit. The circuitry in the unit will automatically reset when the overload or short circuit is located and fixed.
4. **Universal AC Power Input:** The unit accepts any input power in the range of 100-240 VAC, 50/60 Hz.
5. **Intercom Channel Connectors:** When the Combine / Isolate switch is set to the Isolate position, each channel connector is powered separately and has completely separate intercom audio. When the Combine / Isolate switch is set to the Combine position, each channel is still powered separately, but the audio signals are combined so that all users on both channels can intercommunicate.
6. **BAL / UNBAL Selector Switch:** This selector switch allows the user to configure the unit for use in either an Audiocom® (BALANCED) or Clear-Com (UNBALANCED) system. Compatibility includes channel connector pin-outs, channel power requirements, and call signaling requirements. The default setting for this switch is in the Audiocom® (BAL) position.

# Installation

## Unpacking

The package contains the following items. Contact the shipper or your Audiocom® dealer immediately if anything is damaged or missing. Detach and fill out the registration card and return it to Telex to properly register the product.

### PS-2001L

Qty	Description
1	PS-2001L Power Supply
1	Warranty and registration card
1	User Manual
4	Rubber Feet (install for desktop use of the PS-2001L)
1	Power Cord

### SPS-2001

Qty	Description
1	PS-2001L Power Supply
1	Warranty and registration card
1	User Manual
4	Rubber Feet (install for desktop use of the PS-2001L)
1	Power Cord
1	RCA to RCA Patch Cord

## Configuration Switches

The **BAL / UNBAL** switch (located on the rear of the unit) is set to the Balanced (Audiocom) position when the unit is shipped from the factory. To set the switch to the Unbalanced (Clear-Com) mode, use a pointed object such as a pen to push in the switch.

The **Combine / Isolate** switch (located on the front of the unit) can be changed at any time by using a pointed object such as a pen to push in the switch. When the switch is in the Combine position, all users on both channels may intercommunicate. When the switch is set to the Isolate position, channels 1 and 2 cannot intercommunicate.

## Intercom Channel and Program Connections

**Channel Capacity:** When connecting intercom stations to the PS-2001L or SPS-2001, determine the total current for all stations on each channel. The total per channel should not exceed 2A. If you exceed this limit, an overload indication will be provided and the output of the power supply will be turned off. Once the overload is corrected, the overload indication will disappear and the power supply output will be turned on. Note that if you are using DC wallpacks with some intercom stations, you do not need to add the current consumption of those stations to the total current.

**Audiocom Connections:** Intercom Cable wiring details are shown in Figure 3. Speaker interconnection cables (SPS-2001 only) are standard RCA phono types. For program input cable wiring, refer to your master intercom station user manual. Some typical intercom applications are shown in Figures 4 through 8.

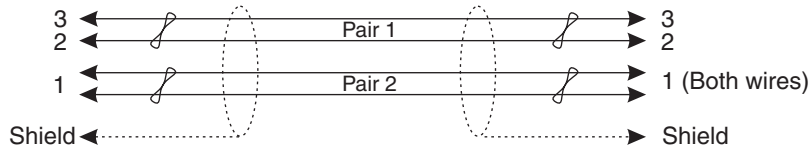
**Clear-Com Applications:** Refer to your Clear-Com system documentation for intercom cable wiring and connection details.

## Desktop or Rackmount Installation

For desktop use, install the four supplied rubber feet to the bottom of the unit. Do not obstruct the cooling vents when using the unit on a desktop.

For rackmounting, use an optional Audiocom Rackmount Kit. Several kits are available to meet the requirements of your particular system. Follow the assembly instructions supplied with the rackmount kit.

**TYPICAL 1-CHANNEL CABLE WIRING**



Cable Type: 22AWG Stranded, 2-Pair Twisted-wire, with Shield

Connector Type: 3-Pin XLR Audio (Neutrik or Switchcraft)\*

Pin 1: Common

Pin 2: Channel Audio / Power

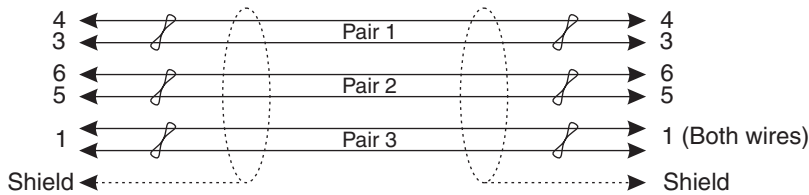
Pin 3: Channel Audio / Power

Shield: Earth ground

Denotes twisted pair.

Denotes shield.

**TYPICAL 2-CHANNEL CABLE WIRING**



Cable Type: 22AWG Stranded, 3-Pair Twisted-wire, with Shield

Connector Type: 6-Pin XLR Audio (Neutrik only, not compatible with 6-pin Switchcraft)\*

Pin 1: Channel 1 & 2 Common

Pin 2: No connection

Pin 3: Channel 1 Audio / Power

Pin 4: Channel 1 Audio / Power

Pin 5: Channel 2 Audio / Power

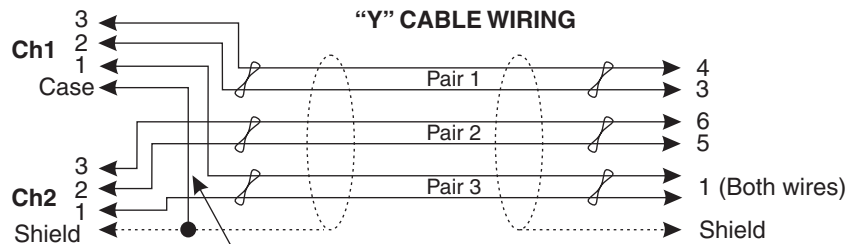
Pin 6: Channel 2 Audio / Power

Shield: Earth ground

Denotes twisted pair.

Denotes shield.

**“Y” CABLE WIRING**



Use second drain wire if available, or add an extra section of wire.

\* Standard cables are generally constructed using a male connector at one end and a female connector at the other end. This allows several cables to be interconnected to create longer cable runs. Audiocom master stations, speaker stations and belt packs also typically provide both a male and female Neutrik connector for each intercom channel. This permits loop-through connection of several intercom stations using the standard cables. Audiocom power supplies use a 3-pin male Neutrik connector for each channel. Audiocom wallplates use male Neutrik connectors.

Figure 3 - Cable Wiring Diagrams for Audiocom Applications.

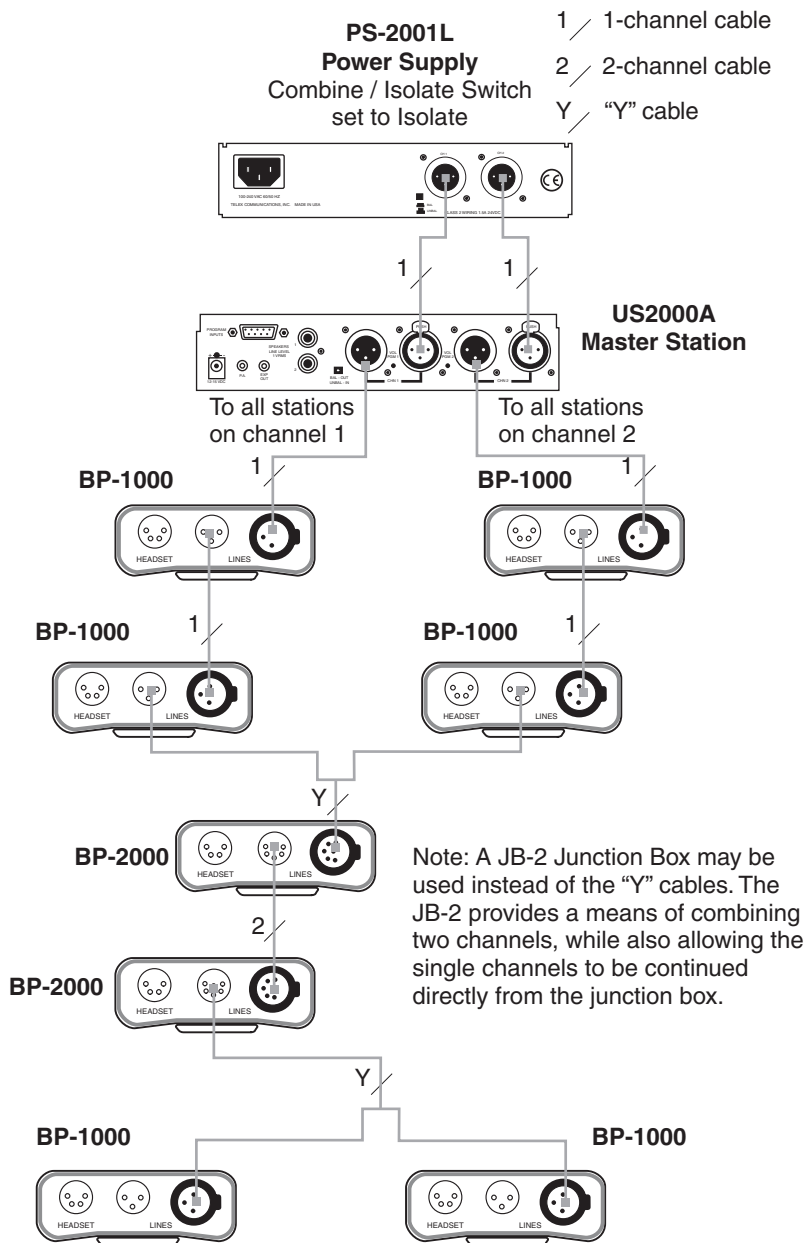
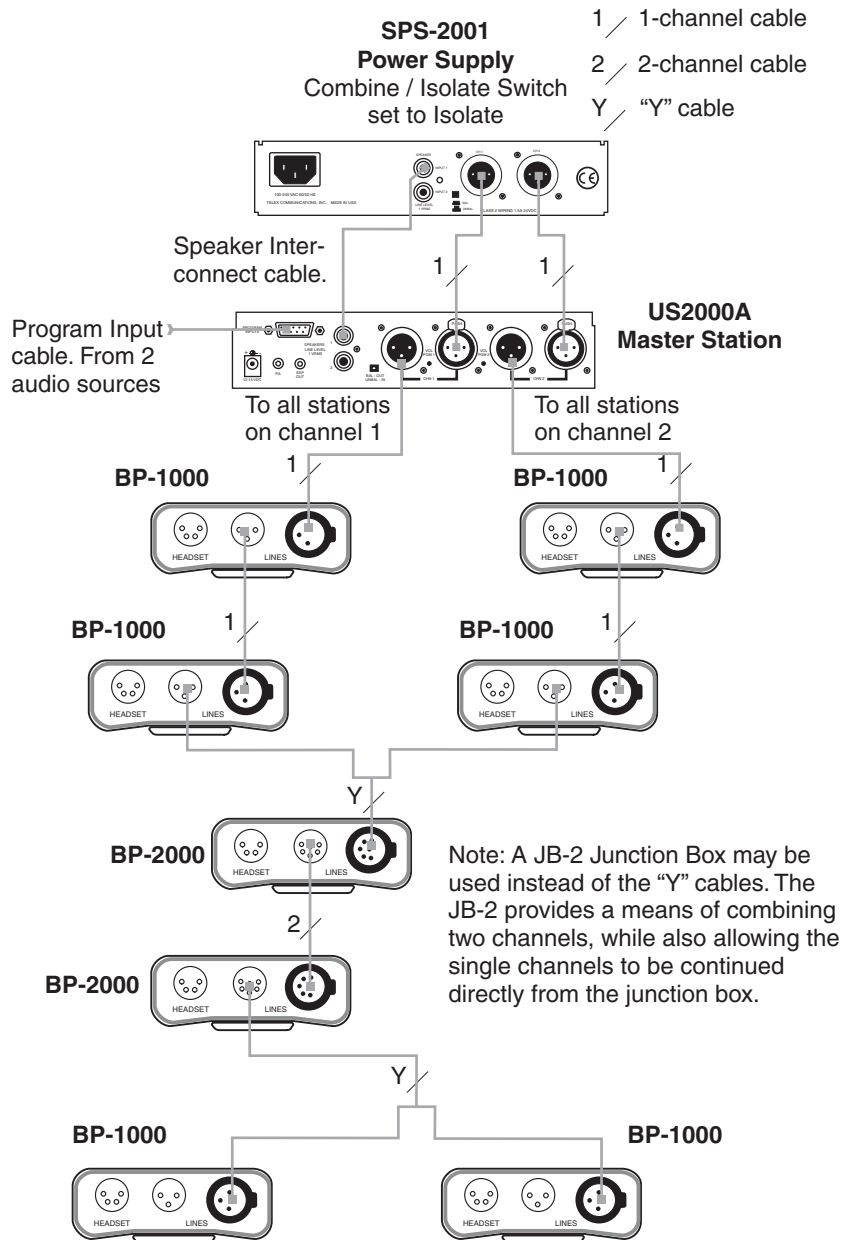
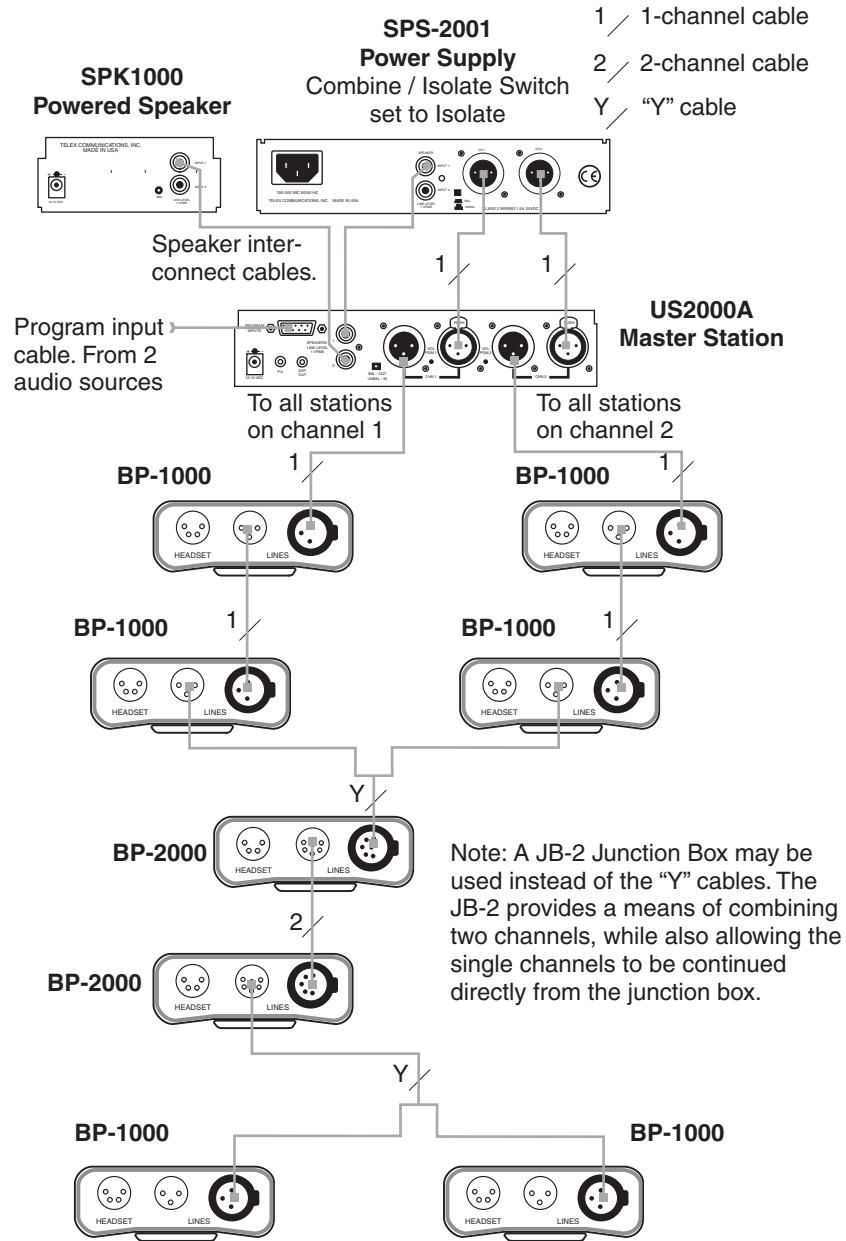


Figure 4 - Typical connections using a single PS-2001L Power Supply to power two channels.

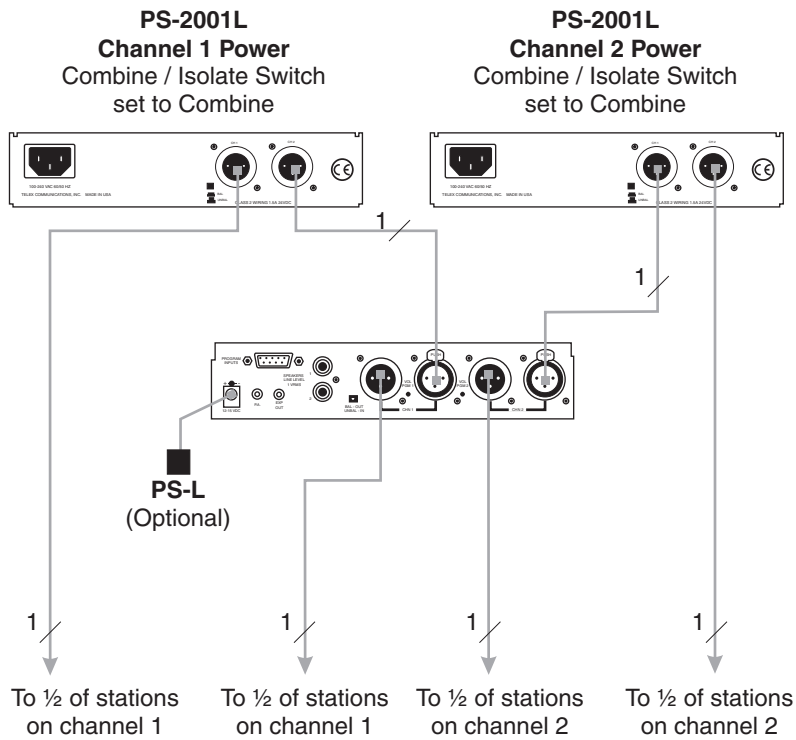




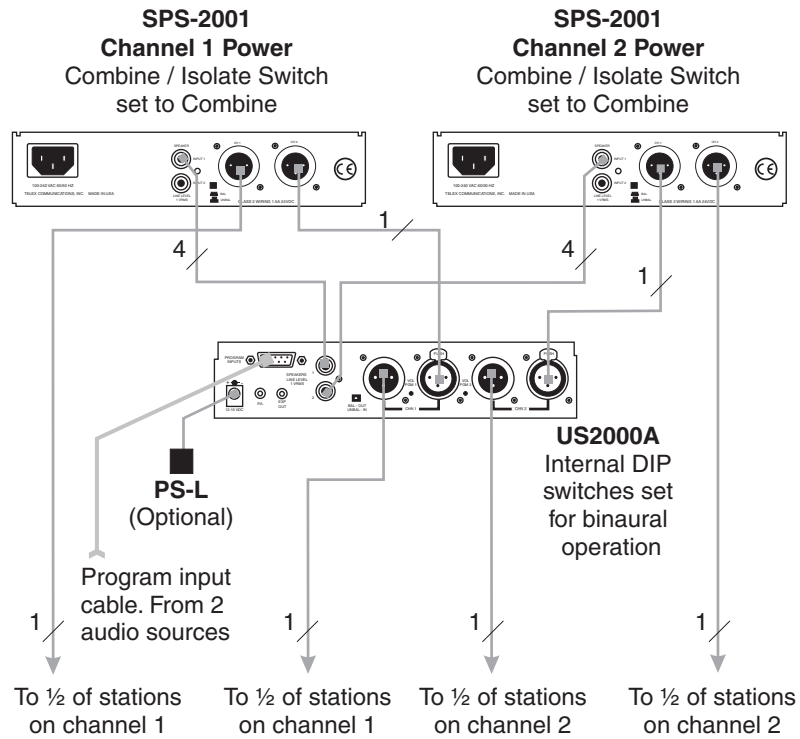
**Figure 5** - Typical connections using one SPS-2001 Power Supply for two intercom channels. The two program sources are monitored independently by their intercom channels. All audio (program and intercom) is monitored as a monaural mix in the SPS-2001 speaker. The US2000A is set for monaural speaker output (default).



**Figure 6** - Adding an SPK1000 to the example in Figure 5. The two program sources are monitored independently by the intercom channels. The SPS-2001 monitors intercom channel 1 and program 1. The SPK1000 monitors intercom channel 2 and program 2. The US2000A is set for binaural speaker output as described in the US2000A User Manual.



**Figure 7** - Using two PS-2001L Power Supplies to provide a greater capacity on each channel.



**Figure 8** - Using two SPS-2001 Power Supplies to provide a greater capacity on each channel. Using two SPS-2001 Power Supplies also lets you independently monitor and adjust volume for both intercom channels without the need for a separate powered loudspeaker. In this application, the US2000A should be set for binaural speaker output as described in the US2000A manual.

# Power-Up Check

1. Plug in any DC wallpacks that are being used with individual intercom stations. Note: If you plug in DC wallpacks after applying power to the PS-2001L or SPS-2001, you may get an overload indication. This is because the stations that are being powered by wallpacks will draw current from the units until their own DC wallpack supplies are connected. To correct the problem, plug in the DC wallpacks.
2. Plug in the AC power cords for any connected PS-2001L or SPS-2001 Power Supplies. The channel status indicators should be green.
3. If a channel status indicator turns red during operation, locate the short or overload that is causing the problem. Once the short or overload is corrected, the Power Supply should reset itself and the overload indication should go away.

## Specifications

### General

Input Power Requirements: 100 to 240 VAC, 50/60 Hz

Output Power (each channel): 21±1 VDC, 2 A

Dimensions 1.75”(44.5 mm) high x 8.25” (209.5 mm) wide x 10.31” (261.9 mm) deep

Weight: approximately 2.5 lb (1.13 kg)

Environmental Requirements:

Storage: -20°C to 80°C, 0% to 95% humidity, non-condensing

Operating: 0°C to 50°C, 0% to 95% humidity, non-condensing

### Intercom Channels

#### General

Connector Type: One XLR-3M audio connector for each channel. Pin-out depends on setting of BAL / UNBAL switch for balanced or unbalanced operation as defined below:

#### Balanced Mode (set to BAL position)

Line Terminating Impedance: 300 ohms ±10%

Connector Pin-out:

Pin 1 Common (audio and DC return)

Pin 2 Full-duplex, balanced intercom audio and +24 VDC output

Pin 3 Full-duplex, balanced intercom audio and +24 VDC output

#### Unbalanced Mode (set to UNBAL position)

Line Terminating Impedance: 150 ohms ±5%

Connector Pin-out:

Pin 1 Common (audio and DC return)

Pin 2 +24 VDC output

Pin 3 Full-duplex, unbalanced Intercom audio high

#### Speaker Inputs (SPS-2001 Only)

Type: RCA Phone Jack

Tip: Speaker + Input

Sleeve: Speaker - Input

### Approvals

UL, CUL, CE

## TRADEMARKS

Audiocom® is a registered trademark of Telex Communications. Names of other products mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

## WARRANTY INFORMATION

Products are warranted by Telex Communications, Inc. to be free from defects in materials and workmanship for a period of one year from the date of sale.

The sole obligation of Telex during the warranty period is to provide, without charge, parts and labor necessary to remedy covered defects appearing in products returned prepaid to Telex. This warranty does not cover any defect, malfunction or failure caused beyond the control of Telex, including unreasonable or negligent operation, abuse, accident, failure to follow instructions in the manual, defective or improper associated equipment, attempts at modification and repair not authorized by Telex, and shipping damage. Products with their serial numbers removed or effaced are not covered by this warranty.

To obtain warranty service, follow the procedures entitled "Procedure for Returns" and "Shipping to Manufacturer for Repair or Adjustment".

This warranty is the sole and exclusive express warranty given with respect to Audiocom products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose.

ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY.

NEITHER TELEX NOR THE DEALER WHO SELLS TELEX PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

## CUSTOMER SUPPORT

Technical questions should be directed to:

Customer Service Department  
Telex  
12000 Portland Avenue South  
Burnsville, MN 55337 U.S.A  
Telephone: (952) 884-4051  
Fax: (952) 884-0043

## RETURN SHIPPING INSTRUCTIONS

### Procedure for Returns

If a return is necessary, contact the dealer where this unit was purchased.

If a return through the dealer is not possible, obtain a RETURN AUTHORIZATION from:

Customer Service Department  
Telex Communications, Inc.  
Telephone: 1-800-392-3497 or (952) 884-4051  
Fax: 1-800-323-0498 or (952) 884-0043

DO NOT RETURN ANY EQUIPMENT DIRECTLY TO THE FACTORY WITHOUT FIRST OBTAINING A RETURN AUTHORIZATION.

Be prepared to provide the company name, address, phone number, a person to contact regarding the return, purchase order number, the type and quantity of equipment, a description of the problem and the serial number(s).

### Shipping to Manufacturer for Repair or Adjustment

All shipments of products should be made via United Parcel Service or the best available shipper prepaid. The equipment should be shipped in the original packing carton; if that is not available, use any suitable container that is rigid and of adequate size. If a substitute container is used, the equipment should be wrapped in paper and surrounded with at least four inches of excelsior or similar shock-absorbing material. All returns must include the return authorization number. Units sent for repair or adjustment **DO NOT** need a return authorization number

Factory Service department  
Telex Communications, Inc.  
West 1<sup>st</sup> Street  
Blue Earth, MN 56013 U.S.A.

Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper collect.